Commonwealth of Kentucky
Natural Resources and Environmental Protection Cabinet
Department for Environmental Protection
Division for Air Quality
803 Schenkel Lane
Frankfort, Kentucky 40601
(502) 573-3382

Title V
AIR QUALITY PERMIT
Issued under 401 KAR 52:020

Permittee Name:	**SGL Carbon, LLC**
Mailing Address:	**Hickman, KY 42050**
Source Name:	**SGL Carbon, LLC**
Mailing Address:	**2320 Myron Cory Drive** **Hickman, KY 42050**
Source Location:	**Fulton County, Kentucky**
Permit Number:	**V-01-023**
Log Number:	**53865**
Review Type:	**Operating**
Source ID #:	**21-075-00001**
Regional Office	**Paducah Regional Office**
County:	**Fulton**
Application Complete Date:	**June 20, 2001**
Issuance Date:	**January 30, 2003**
Expiration Date:	**January 30, 2008**

John Lyons, Director
Division for Air Quality

Permit Number: V-01-023

SECTION A - PERMIT AUTHORIZATION

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any affected facilities without first having submitted a complete application and receiving a permit for the planned activity from the permitting authority, except as provided in this permit or in 401 KAR 52:020, Title V Permits.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by this Cabinet or any other federal, state, or local agency.

SECTION B - AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

SUMMARY TABLE OF AFFECTED FACILITIES

Group No.	Source Identification	Associated Control Devices	Applicable Regulations	Page No.
1	Coke Unloading	none	59:010	5
2	Particle Screening	Dust Collectors	59:010	5
3	Tanks	Condensers	Subpart Kb	10
4	Mixing and Extrusion	RTO/Scrubber	59:010	5
5	Baking/Conveyor System	none	59:010	6
6	Cleaning Machine	Baghouse	61:020	12
7	Ring Bake Furnace	2 ESPs	59:010, 59:105	15

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APPLICABLE REGULATIONS :

401 KAR 59:010 New Process Operations. The provisions of this administrative regulation shall apply to each affected facility or source, associated with a process operation, which is not subject to another emission standard with respect to particulates commenced on or after July 2, 1975.

401 KAR 59:015 New Indirect Heat Exchangers. The provisions of this administrative regulation shall apply to each affected facility, an indirect heat exchanger having a heat input capacity of more than one (1) million Btu (mmBtu) per hour, commenced on or after April 9, 1972 for affected facilities with a capacity of 250 mmBtu/hr heat input or less with respect to particulate emissions and sulfur dioxide emisions.

401 KAR 59:105 New Process Gas Streams. The provisions of this administrative regulation shall apply to each affected facility which means any gas stream, emitted from any process including by-product coke plants except process upset gas, which commenced on or after June 6, 1979.

401 KAR 61:015 Existing Indirect Heat Exchangers. The provisions of this administrative regulation shall apply to each affected facility, an indirect heat exchanger having a heat input capacity of more than one (1) million Btu (mmBtu) per hour, commenced before April 9, 1972 for affected facilities with a capacity of 250 mmBtu/hr heat input or less.

401 KAR 61:020 Existing Process Operations. The provisions of this administrative regulation shall apply to each affected facility or source, associated with a process operation, which is not subject to another emission standard with respect to particulates, commenced before July 2, 1975.

401 KAR 63:010 Fugitive Emissions. The provisions of this administrative regulation are applicable to each apparatus, operation or road which emits or may emit fugitive emissions provided that the fugitive emissions from such facility are not elsewhere subject to an opacity standard.

401 KAR 63:020 Potentially Hazardous Matter or Toxic Substances. The provisions of this administrative regulation are applicable to each facility which emits or may emit potentially hazardous matter or toxic substances provided such emissions are not elsewhere subject to the provisions of the administrative regulations of the Division for Air Quality.

401 KAR 60:005. 40 CFR Part 60 Standards of Performance for New Stationary Sources. Subpart Kb Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984. The affected facility to which this subpart applies is each storage vessel with a capacity greater than or equal to 40 cubic meters (m^3) that is used to store volatile organic liquids for which construction, reconstruction, or modification is commenced after July 23, 1984.

SECTION B - AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

REGULATIONS NOT APPLICABLE :

401 KAR 52:090 Prohibitory Rule for Hot Mix Asphalt Plants. This administrative regulation shall apply to hot mix asphalt plants. Promulgated under 401 KAR 52:001, a "Hot Mix Plant" is defined as an affected facility that manufactures hot mix asphalt by heating and drying aggregate amd mixing it with asphalt cements. This facility does not produce hot mix asphalt.

401 KAR 59:260 New Blast Furnace Casthouses. The provisions of this administrative regulation shall apply to blast furnace casthouses. A "Blast Furnace" means a furnace producing pig iron by introducing iron-bearing materials, coke, and flux materials into a vessel and introducing heated combustion air to form a reducing gas which is passed counter current to the descending raw materials. This facility does not produce iron products and therefore this reguation does not apply.

401 KAR 60:670 Standards of Performance for Nonmetallic Mineral Processing Plants. This administrative regulation shall apply to sources specified in 40 CFR 60 Subpart OOO. This facility processes graphite which is not listed in § 60.671 under definitions for nonmetallic minerals.

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Group # 01 COKE UNLOADING (Old EIS # 21)

Process Unit 01 : ***Railcar / Truck Hopper***

Process Description: Raw carbon material is brought into the facility mainly by railcar. This material is transported from railcar to a holding bin. The hopper is the initial conveying facility that operates in batch mode. The raw carbon is stored in silos until ready for use.

Applicable Regulation(s): 401 KAR 59:010

Control Device Description: None; emissions are fugitive.

Initial Construction Date: January 1, 1990; Log D373

Group # 02 PARTICLE SCREENING SYSTEM (Old EIS # 26)

Process Unit 01 : ***Small Fraction Screen***

Process Description: Raw coke is screened and filtered to various particle sizes. The smallest screen mesh size for smaller particle fractions results in high PM emissions. The larger mesh screens have insignificant emissions.

Applicable Regulation(s): 401 KAR 59:010.

Control Device Description: Dust collector using polyester filter bags.

Initial Construction Date: June 21, 1995; Log D373

Group # 04 MIXING AND EXTRUSION SYSTEM (Old EIS # 25)

Process Unit 01 : ***Mixer***

Process Unit 02 : ***Thermal Oxidizer***

Process Description: Raw coke material is mixed with coal tar pitch, extrusion oil, stearic acid, and iron oxide, which is extruded through a die-mold.

Applicable Regulation(s): 401 KAR 59:010

Control Device(s) Description:

Thermal oxidizer to control PM and VOC emissions.

Rotary wet scrubber to capture PM and VOC emissions.

Initial Construction Date: June 21, 1995; Log D373

SECTION B - AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

Group # 05 BAKING CONVEYOR SYSTEM (Old EIS # 20)

Process Unit 01 : ***Truck Dump Hopper***
Process Unit 02 : ***Vibrating Screens***
Process Unit 03 : ***Screener***
Process Description: Raw coke is transported from storage bins (silos) to the transporter hoppers. Conveying and transport systems are used as needed.
Applicable Regulation(s): 401 KAR 59:010
Control Device Description: None; emissions are fugitive.
Initial Construction Date: January 1, 1990

SECTION B - AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

Conditions for Groups 01, 02, 04 and 05:

1. Operating Limitations: None.

2. Emission Limitations:

a. Pursuant to 401 KAR 59:010, for emissions from a control device or stack, no person shall cause, suffer, allow or permit the emission into the open air of particulate matter (PM) from any affected facility which is in excess of the quantity described below :

$$E = 3.59(P)^{0.62}$$

E = the allowable PM emissions rate (pounds per hour)
P = the process rate (tons per hour)

b. Pursuant to 401 KAR 59:010, no person shall cause, suffer, allow or permit any continuous emission into the open air from a control device or stack associated with any affected facility which is equal to or greater than twenty (20) percent opacity.

Compliance Demonstration:
The permittee shall assure compliance with the allowable PM emission limit by calculating the actual PM emission rates using the following equation:

$$E_a = P \times EF \times (1-n)/M$$

where:
E_a = actual hourly emission rate (pounds per hour)
P = the process rate (tons per month);
EF = the relevant emission factor (lbs per ton processed);
n = the baghouse efficiency (from manufacturer's specifications). If no baghouse exists, then the efficiency is zero (0).
M = hours of operation in each month (hours per month)

See the Testing, Monitoring and Recordkeeping requirements for compliance with opacity.

3. Testing Requirements:
Pursuant to 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in 401 KAR 50:015 shall be conducted as required by the Division. This includes any testing necessary for opacity observation determination.

SECTION B - AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

4. Specific Monitoring Requirements:

a. The permittee shall monitor the relevant process operating parameters, including but not limited to:
   i. Monthly product throughput;
   ii. Hours of operation per each month;
   ii. Maintenance schedule for process equipment and control device equipment.

b. Parameters for the baghouse, wet scrubber and thermal oxidizer must be controlled to maintain sufficient particulate removal to remain in compliance. The parameters to be monitored are:
   i. Pressure drop across the baghouse filters daily;
   ii. Liquid input to the wet scrubber daily; and
   iii. Oxidizer internal temperature daily.

c. The permittee shall visually inspect all equipment and devices such that each equipment is operating according to manufacturers specifications.

d. Once per calendar day and during a period of operation, the permittee shall survey each process unit for visible emissions. If no visible emissions are observed then no further action is required. If visible emissions are observed, the permittee shall make a log noting the following information:
   i. Whether any air emissions were visible from any individual stack;
   ii. All emission points from which visible emissions were observed;
   iii. Whether the visible emissions were normal.

5. Specific Recordkeeping Requirements:

a. The owner or operator shall maintain a file of all measurements, adjustments and maintenance performed on these systems or devices on a permanent form suitable for inspection. The file shall be retained for at least 5 years following the date of such measurements, maintenance, reports and records.

b. The owner or operator shall maintain records of raw material throughputs in the screening process, including the operations listed under monitoring requirements.

c. The permittee shall maintain the records of processing operations and operating parameters of the control equipment. See monitoring requirements for parameters to be recorded.

d. The permittee shall maintain the records of opacity observations that deviate from normal operation. If visible emissions appear to exceed normal conditions, then the following shall be recorded as a dated entry in a log book:

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i. The color of the emissions;
ii. Whether the emissions were light or heavy;
iii. The total duration of the visible emission incident;
iv. The cause of the abnormal emissions; and
v. Any corrective actions taken.

6. Specific Reporting Requirements:

The permittee shall report any opacity observation exceedance to the Paducah Regional Office within 3 days of the occurrence.

7. Specific Control Equipment or Operating Condition:

For Group # 04 : The wet scrubber and thermal oxidizer shall be used to control PM and VOC emissions which is enforceable to a practical matter. PM emissions must be controlled to meet the applicable regulations.

SECTION B - AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

Group # 03 TANKS

Process Unit 01 : ***Coal Tar Pitch Tanks*** (breathing losses)
Process Unit 02 : ***Coal Tar Pitch Tanks*** (working losses)
Process Description: Coal tar pitch is stored on site. The tar pitch tanks are heated, using electric heaters, near 380°F to avoid solidification. The pitch transfer from railcar tankers or truck tankers requires a preheating of the mobile tank and piping lines. The piping lines are jacketed and heated with therminol, whereas the railcars and truck tanks are electrically heated.
Applicable regulation(s): 401 KAR 60:005 (40 CFR 60 Subpart Kb)
Control Device Description: Condensers
Initial Construction Date: November 1998

1. Operating Limitations: None

2. Emission Limitations:

Pursuant to 40 CFR 60.112b(a)(3), the closed vent system shall be designed to collect all VOC vapors and gases discharged from the coal tar pitch storage vessels and operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determined in part 40 CFR 60.485(b), subpart VV.

Compliance Demonstration:

Operate the closed vent system and control device and monitor the parameters of the closed vent system and control device in accordance with the operating plan submitted to the Division.

See also the monitoring and recordkeeping requirements.

3. Testing Requirements: None

4. Specific Monitoring Requirements:

The parameters listed in the submitted operating plan.

5. Specific Recordkeeping Requirements:

The owner or operator shall keep the following records:

a. A copy of the operating plan. This record will be kept for the life of the control equipment.

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b. A record of the measured values of the parameters monitored in accordance with 40 CFR 60.113b(c)(2).

c. The owner or operator of each coal tar pitch storage vessel shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. This record shall be maintained for the life of the source.

d. The owner or operator of each coal tar pitch storage vessel shall maintain a record of the volatile organic liquid (VOL) stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period. Copies of these records shall be maintained for at least 5 years.

6. Specific Reporting Requirements:

See Section F – Monitoring, Recordkeeping and Reporting Requirements.

7. Specific Control Equipment or Operating Condition:

The permittee shall operate and maintain the condensing unit in accordance with manufacturers specifications to collect VOCs and HAP emissions such that emissions do not exceed the standards described in the Emission Limitations above.

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Group # 06 CLEANING MACHINE (Old EIS # 15)

Process Unit 01 : ***Cleaning Machine***

Process Description: Baked electrodes come out of the Ring Bake furnace and must be cleaned, before shipping, using the cleaning machine. Carbon chips that are loosely associated with the electrodes, are scraped off recycled back through the vacuum system.

Applicable regulation(s): 401 KAR 61:020

Control Devices Description: Baghouse using polyester filter bags

Initial Construction Date: July 1, 1969

1. Operating Limitations: None.

2. Emission Limitations:

Pursuant to 401 KAR 61:020 :

a. For emissions from a control device or stack no person shall cause, suffer, allow or permit the emission into the open air of particulate matter (PM) from any affected facility which is in excess of the quantity described below:

$$\mathbf{E = 4.10(P)^{0.67}}$$

E = the PM emissions rate (pounds per hour)
P = the process rate (tons per hour)

b. No person shall cause, suffer, allow or permit any continuous emission into the open air from a control device or stack associated with any affected facility that is equal to or greater than forty (40) percent opacity.

Compliance Demonstration:

The permittee shall assure compliance with the particulate matter emission limitations by calculating the actual PM emission rates using the process rate described above and the following equation:

$$\mathbf{E_a = P \times EF \times (1-n)/M}$$

where:
$\mathbf{E_a}$ = hourly emissions rate (pounds per hour)
P = process rate (tons per month);
EF = is the relevant emission factor (pounds per ton processed);
n = baghouse efficiency (from manufacturer's specifications).
M = hours of operation per month.

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See the Testing, Monitoring and Recordkeeping requirements for compliance with opacity.

3. Testing Requirements :

Pursuant to 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in 401 KAR 50:015 shall be conducted as required by the Division. This includes any testing necessary for opacity observation determination.

4. Specific Monitoring Requirements:

a. The permittee shall monitor the relevant process operating parameters, including but not limited to:
   i. Monthly raw material throughput.
   ii. Hours of operation in each month.
   iii. Pressure drop across the baghouse filter bag, daily.

b. Once per calendar day and during a period of operation, the permittee shall survey each process unit for visible emissions. If no visible emissions are observed then no further action is required. If visible emissions are observed, the permittee shall make a log noting the following information:
   i. Whether any air emissions were visible from any individual stack;
   ii. All emission points from which visible emissions were observed;
   iii. Whether the visible emissions were normal.

5. Specific Recordkeeping Requirements:

a. All parameters specified under secific monitoring requirements above.

b. Records shall be kept on the maintenance and repairs performed on the baghouse.

c. The permittee shall maintain the records of opacity observations that deviate from normal operation. If visible emissions appear to exceed normal conditions, then the following shall be recorded as a dated entry in a log book:
   i. The color of the emissions;
   ii. Whether the emissions were light or heavy;
   iii. The total duration of the visible emission incident;
   iv. The cause of the abnormal emissions; and
   v. Any corrective actions taken.

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6. Specific Reporting Requirements:

The permittee shall report any opacity observation exceedance to the Paducah Regional Office within 3 days of the occurrence.

7. Specific Control Equipment or Operating Condition:

The owner or operator shall operate and maintain the baghouse according to manufacturers specifications.

SECTION B - AFFECTED FACILITIES, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

Group # 07 RING BAKE FURNACE (Old EIS # 16)

Process Unit 01 : ***Ring Bake Furnace (Green Anode Baking)***
Process Unit 02 : ***Natural Gas Usage***
Process Description: Molded graphite carbon anodes are lowered in to a ring bake furnace for firing. Operates in batch mode. Carbon chips are dumped into the furnace units for electrode support. When natural gas is fired, the electrodes are heated anywhere from 17 to 24 days. There are 22 furnace shells, so a single shell is emptied while another is filled on each day, approximately. The burners operate at approximately 3 mmBtu/hr.
Applicable regulation(s): 401 KAR 59:010, 401 KAR 59:105
Control Device Description: Electrostatic precipitators
Initial Construction Date: January 30, 1981;
Recent Modification: June 2001, Log 53864

1. **Operating Limitations:** None.

2. **Emission Limitations:**
Pursuant to 401 KAR 59:010 :
a. For emissions from a control device or stack no person shall cause, suffer, allow or permit the emission into the open air of particulate matter (PM) from any affected facility which is in excess of the quantity described below :

$$E = 3.59(P)^{0.62}$$

E = the PM emissions rate (pounds per hour)
P = the process rate (tons per hour)

b. No person shall cause, suffer, allow or permit any continuous emission into the open air from a control device or stack associated with any affected facility which is equal to or greater than twenty (20) percent opacity.

Compliance Demonstration:
Compliance for particulate emissions must be met on an hourly average basis which can be determined according to the equation:

$$E_a = P \times EF \times (1-n)/M$$

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where:
$\mathbf{E_a}$ = the PM hourly emission rate (pounds per hour)
P = baked electrode process rate (tons per month)
EF = PM emission factor in the EIS system
n = control efficiency that is federally enforceable to a practical matter
M = monthly hours of operation

See the Testing, Monitoring and Recordkeeping requirements for compliance with opacity.

Pursuant to 401 KAR 59:105 :

c. No person shall cause, suffer, allow or permit the emission of sulfur dioxide in a process gas stream to exceed 28.63 grains per 100 dry scf (250 ppmv) at zero percent oxygen.

Compliance Demonstration:

The permittee shall ensure that the anodes to be baked do not exceed 11.1 pounds of sulfur per ton of green anode to be baked. See Recordkeeping requirements.

3. Testing Requirements:

a. Pursuant to 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in 401 KAR 50:015 shall be conducted as required by the Division.

b. The sampling site for performance testing shall be located in the exhaust stack past the electrostatic precipitators [Group 07]. The analysis of one ESP shall be sufficient to describe the other ESP provided both are operated and maintained in a similar manner.

4. Specific Monitoring Requirements:

The permittee shall monitor and control the relevant operating parameters for:

a. green anode baking:
   i. Monthly green anode throughput.
   ii. Hours of operation in each month.

b. electrostatic precipitators to maintain sufficient particulate removal:
   iii. Voltage across ESP plates hourly; and
   iv. Current for each transformer set hourly.

c. The permittee shall visually inspect all equipment and devices such that each equipment is operating according to manufacturers specifications.

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d. Once per calendar day and during a period of operation, the permittee shall survey each process unit for visible emissions. If no visible emissions are observed then no further action is required. If visible emissions are observed, the permittee shall make a log noting the following information:
   i. Whether any air emissions were visible from any individual stack;
   ii. All emission points from which visible emissions were observed;
   iii. Whether the visible emissions were normal.

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain the records of processing green electrodes and operating parameters of the control equipment. See Monitoring requirements for parameters to be recorded.

b. The permittee shall maintain the records of opacity observations that deviate from normal operation. If visible emissions appear to exceed normal conditions, then the following shall be recorded as a dated entry in a log book:
   i. The color of the emissions;
   ii. Whether the emissions were light or heavy;
   iii. The total duration of the visible emission incident;
   iv. The cause of the abnormal emissions; and
   v. Any corrective actions taken.

c. The permittee shall maintain records of chemical analysis of the tar pitch and coke used which clearly indicates the sulfur content. This record shall be kept for up to 2 years and made available to any member of the Division for inspection purposes.

6. Specific Reporting Requirements: None

7. Specific Control Equipment Operating Condition:

At least one electrostatic precipitator shall be in operation when the furnace is in operation to remove particulate matter from the exhaust.

SECTION C. INSIGNIFICANT ACTIVITIES

The following listed activities have been determined to be insignificant activities for this source pursuant to 401 KAR 52:030, Section 6. While these activities are designated as insignificant the permittee must comply with the applicable regulation and some minimal level of periodic monitoring may be necessary.

Group #	Process Unit Description	Applicable Regulations
01 Coke Unloading	1) Hopper Feeder	401 KAR 59:010
	2) Bucket Elevator	"
02 Particle Screening	1) Roof Screw Conveyor	401 KAR 59:010
	2) Screen Presizing	"
	3) Screen (Large)	"
	4) 6 Fine Particle Bins	"
	5) 6 Coarse Particle Bins	"
	6) 6 Fine Particle Bin Feeder	"
	7) 6 Coarse Particle Bin Feeder	"
	8) Small Particle Scale	"
	9) Large Particle Scale	"
	10) Vibrate Conveyor #2	"
	11) Vibrate Conveyor #1	"
	12) Fines to Silo Conveyor	"
	13) Fines Up Conveyor	"
	14) Fines to Silo Conveyor	"
	15) Fine to Raw Conveyor	"
	16) Fines to Silo Conveyor (2)	"
	17) Fines to Silo Conveyor	"
	18) Surge Hopper (Small)	"
	19) Surge Hopper (Large)	"
	20) Belt Feeder	"
	21) Screw Conveyor	"
	22) Bucket Elevator	"
03 Tanks	1) Extrusion Oil	40 CFR 60 Subpart Kb
04 Mixing/ Extrusion	1) Natural gas usage	401 KAR 59:015

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05 Baking System	1) Truck hopper	401 KAR 59:010,
	2) Belt Conveyor	401 KAR 63:010
	3) Elevator Conveyor	"
	4) Silos Screw Conveyor	"
	5) Vibrator Feeder	"
	6) Jaw Crusher	"
	7) South Silo	"
	8) North Silo	"
	9) Fines Bin	"
	10) A-Discharge Feeder	"
	11) B-Discharge Feeder	"
	12) Vacuum	"
08 Boilers	1) 6.1 mmBtu/hr	401 KAR 61:015
	2) 6.1 mmBtu/hr	"
	3) 5.23 mmBtu/hr	401 KAR 59:015
	4) 2.41 mmBtu/hr	"

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

1. As required by Section 1b of the "Cabinet Provisions and Procedures for Issuing Title V Permits" referenced in 401 KAR 52:020, Section 10; compliance with annual emissions and processing limitations contained in this permit, shall be based on emissions and processing rates for any twelve (12) consecutive months.

2. Particulate emissions from baghouses shall not exceed the respective allowable limitations specified herein.

3. Pursuant to 401 KAR 63:020, persons responsible for a source from which hazardous matter or toxic substances may be emitted shall provide the utmost care and consideration, in the handling of these materials, to the potentially harmful effects of the emisions resulting from such activities. No owner or operator shall allow any affected facility to emit potentially hazardous matter or toxic substances in such quantities or duration as to be harmful to the health and welfare of humans, animals and plants. Evaluation of such facilities as to adequacy of controls and/or procedures and emission potential will be made on an individual basis by the cabinet.

4. Within sixty (60) days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after final issuance of this permit, and at such other times as may be required by the cabinet, the owner or operator of this affected facility shall conduct a performance test according to 401 KAR 50:045 and furnish the cabinet a written report of the results of such performance test.

5. If performance testing is required or performed, the owner or operator of an affected source shall notify the Administrator in writing of his or her intention to conduct a performance test at least 30 calendar days before the performance test is scheduled to begin to allow the Division, upon request, to review and approve the site-specific test plan.

SECTION E - SOURCE CONTROL EQUIPMENT OPERATING REQUIREMENTS

1. Pursuant to 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

2. Baghouses, wet scrubbers, thermal oxidizers and electrostatic precipitators shall be maintained according to the manufacturer's specifications.

3. Particulate emissions from all affected facilities must be controlled to meet the allowable standard pursuant to 401 KAR 59:010, which is federally enforceable as a practical matter.

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS

1. When continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
   a. Date, place as defined in this permit, and time of sampling or measurements.
   b. Analyses performance dates;
   c. Company or entity that performed analyses;
   d. Analytical techniques or methods used;
   e. Analyses results; and
   f. Operating conditions during time of sampling or measurement.
   [Material incorporated by reference by 401 KAR 52:020, Section 1b (IV)1

2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality. [Material incorporated by reference by 401 KAR 52:020, Sections 1b(IV) 2 and 1a(8)]

3. In accordance with the requirements of 401 KAR 52:020 Section 3(1)h the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times:
   a. Enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation;
   b. To access and copy any records required by the permit;
   c. Inspect, at reasonable times, any facilities, equipment (including monitoring and pollution control equipment), practices, or operations required by the permit. Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency;
   d. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements;
   e. Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency.

4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

5. Summary reports of any monitoring required by this permit shall be submitted to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit, unless otherwise stated in this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation.
   [Material incorporated by reference by 401 KAR 52:020, Section 1b (V)1.]

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS

6. The semi-annual reports are due by January 30th and July 30th of each year. Data from the continuous emission and opacity monitors shall be reported to the Technical Services Branch in accordance with the requirements of 401 KAR 59:005, General Provisions, Section 3(3). All reports shall be certified by a responsible official pursuant to 401 KAR 52:020 Section 23. All deviations from permit requirements shall be clearly identified in the reports.

7. In accordance with the provisions of 401 KAR 50:055, Section 1, the owner or operator shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows:
   a. When emissions during any planned shutdowns and ensuing startups will exceed the standards, notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
   b. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards, notification shall be made as promptly as possible by telephone (or other electronic media) and shall cause written notice upon request.

8. The owner or operator shall report emission related exceedances from permit requirements, including those attributed to upset conditions (other than emission exceedances covered by Section F.7. above), to the Regional Office listed on the front of this permit within 30 days. Other deviations from permit requirements shall be included in the semiannual report required by Section F.6. [Material incorporated by reference by 401 KAR 52:020, Section 1b V 3, 4.]

9. Pursuant to 401 KAR 52:020, Permits, Section 21, the permittee shall certify compliance with the terms and conditions contained in this permit by completing and returning a Compliance Certification Form (DEP 7007CC) (or an alternative approved by the regional office) to the Regional Office listed on the front of this permit and the U.S. EPA in accordance with the following requirements:
   a. Identification of the term or condition;
   b. Compliance status of each term or condition of the permit;
   c. Whether compliance was continuous or intermittent;
   d. The method used for determining the compliance status for the source, currently and over the reporting period, and
   e. For an emissions unit that was still under construction or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS

f. The certification shall be postmarked by January 30th of each year. Annual compliance certifications should be mailed to the following addresses:

Division for Air Quality
Paducah Regional Office
4500 Clarks River Road
Paducah KY 42003-0823

Division for Air Quality
Central Files
803 Schenkel Lane
Frankfort, KY 40601

U.S. EPA Region IV
Air Enforcement Branch
Atlanta Federal Center
61 Forsyth St.
Atlanta, GA 30303-8960

10. In accordance with 401 KAR 52:020, Section 22, the permittee shall provide the division with all information necessary to determine its subject emissions within thirty (30) days of the date the KYEIS emission survey is mailed to the permittee.

11. Pursuant to Section VII.3 of the policy manual of the Division for Air Quality as referenced in 401 KAR 50:016, Section 1(1), results of performance test(s) required by the permit shall be submitted to the division by the source or its representative within forty-five days after the completion of the fieldwork.

SECTION G - GENERAL PROVISIONS

(a) General Compliance Requirements

1. The permittee shall comply with all conditions of this permit. Noncompliance shall be a violation of 401 KAR 52:020 and of the Clean Air Act and is grounds for enforcement action including termination, revocation and reissuance, revision or denial of a permit. [Material incorporated by reference by 401 KAR 52:020, Section 1a, 3]

2. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance, shall not stay any permit condition. [Material incorporated by reference by 401 KAR 52:020, Section 1a, 6]

3. This permit may be revised, revoked, reopened and reissued, or terminated for cause in accordance with 401 KAR 52:020, Section 19. The permit will be reopened for cause and revised accordingly under the following circumstances:
   a. If additional requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to 401 KAR 52:020, Section 12;
   b. The Cabinet or the US EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements;
   c. The Cabinet or the US EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit;
   d. Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable. Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the division may provide a shorter time period in the case of an emergency.

4. The permittee shall furnish information upon requested by the cabinet to determine if cause exists for modifying, revoking and reissuing, or terminating the permit; or compliance with the permit. [Material incorporated by reference by 401 KAR 52:020, Section 1a, 7,8]

5. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such facts or corrected information to the permitting authority. [Material incorporated by reference by 401 KAR 52:020, Section 7(1)]

6. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit. [Material incorporated by reference by 401 KAR 52:020, Section 1a, 14]

SECTION G - GENERAL PROVISIONS

7. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance. [Material incorporated by reference by 401 KAR 52:020, Section 1a, 4]

8. Except for requirements identified in this permit as state-origin requirements, all terms and conditions shall be enforceable by the United States Environmental Protection Agency and citizens of the United States. [Material incorporated by reference by 401 KAR 52:020, Section 1a, 15)b]

9. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in 401 KAR 50:038, Section 3(6). [Material incorporated by reference by 401 KAR 52:020, Section 1a, 10]

10. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance. [401 KAR 52:020, Section 11(3)(b)]

11. This permit does not convey property rights or exclusive privileges. [Material incorporated by reference by 401 KAR 52:020, Section 1a, 9]

12. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Kentucky Cabinet for Natural Resources and Environmental Protection or any other federal, state, or local agency.

13. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry. [401 KAR 52:020, Section 11(3)(d)].

14. Nothing in this permit shall alter or affect the authority of U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders. [401 KAR 52:020, Section 11(3)(a)]

15. Permit Shield - A permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the time of permit issuance. Compliance with the conditions of a permit shall be considered compliance with:
    (a) Applicable requirements that are included and specifically identified in the permit;
    (b) Non-applicable requirements expressly identified in this permit.

16. This permit consolidates the authority of any previously issued PSD, NSR, or Synthetic minor source preconstruction permit terms and conditions for various emission units and incorporates all requirements of those existing permits into one single permit for this source

(b) Permit Expiration and Reapplication Requirements

1. This permit shall remain in effect for a fixed term of five (5) years following the original date of issue.

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Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the division at least six months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the division. [401 KAR 52:020, Section 12]

2. The authority to operate granted shall cease to apply if the source fails to submit additional information requested by the division after the completeness determination has been made on any application, by whatever deadline the division sets. [401 KAR 52:030 Section 8(2)]

(c) Permit Revisions

1. A minor permit revision procedure may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the SIP or in applicable requirements and meet the relevant requirements of 401 KAR 52:020, Section 14(2).

2. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority within ten (10) days following the transfer.

(d) Construction, Start-Up, and Initial Compliance Demonstration Requirements

1. Construction of process and/or air pollution control equipment authorized by this permit shall be conducted and completed only in compliance with the conditions of this permit.
   a. Within thirty (30) days following completion and within fifteen (15) days following start-up and attainment of the maximum production rate specified in the permit application, or within fifteen (15) days following the issuance date of this permit, whichever is later, the permittee shall furnish to the Regional Office listed on the front of this permit in writing, with a copy to the division’s Frankfort Central Office, notification of the following:
   b. The date when construction commenced.
   c. The date of start-up of the affected facilities listed in this permit.
   d. The date when the maximum production rate specified in the permit application was achieved.

2. Pursuant to 401 KAR 52:020, Section 3(2), unless construction is commenced within eighteen (18) months after the permit is issued, or begins but is discontinued for a period of eighteen (18) months or is not completed within a reasonable timeframe then the construction and operating authority granted by this permit for those affected facilities for which construction was not completed shall

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immediately become invalid. Upon written request, the cabinet may extend these time periods if the source shows good cause.

3. For those affected facilities for which construction is authorized by this permit, a source shall be allowed to construct with the proposed permit. Operational or final permit approval is not granted by this permit until compliance with the applicable standards specified herein has been demonstrated pursuant to 401 KAR 50:055. If compliance is not demonstrated within the prescribed timeframe provided in 401 KAR 50:055, the source shall operate thereafter only for the purpose of demonstrating compliance, unless otherwise authorized by Section I of this permit or order of the cabinet.

4. This permit shall allow time for the initial start-up, operation, and compliance demonstration of the affected facilities listed herein. However, within sixty (60) days after achieving the maximum production rate at which the affected facilities will be operated but not later than 180 days after initial start-up of such facilities, the permittee shall conduct a performance demonstration test on the affected facilities in accordance with 401 KAR 50:055, General compliance requirements. These performance tests must also be conducted in accordance with General Provisions G(d)6 of this permit and the permittee must furnish to the Division for Air Quality's Frankfort Central Office a written report of the results of such performance test.

5. Pursuant to Section VII 2.(1) of the policy manual of the Division for Air Quality as referenced by 401 KAR 50:016, Section 1.(1), at least one month prior to the date of the required performance test, the permittee shall complete and return a Compliance Test Protocol (Form DEP 6027) to the division's Frankfort Central Office. Pursuant to 401 KAR 50:045, Section 5, the division shall be notified of the actual test date at least ten (10) days prior to the test.

6. Pursuant to Section VII 2.(1) of the policy manual of the Division for Air Quality as referenced by 401 KAR 50:016, Section 1.(1), at least one month prior to the date of the required performance test, the permittee shall complete and return a Compliance Test Protocol (Form DEP 6027) to the division's Frankfort Central Office. Pursuant to 401 KAR 50:045, Section 5, the division shall be notified of the actual test date at least ten (10) days prior to the test.

7. Terms and conditions in this permit established pursuant to the construction authority of 401KAR 51:017 or 401 KAR 51:052 shall not expire.

(f) Emergency Provisions

1. Pursuant to 401 KAR 52:020 Section 24(1), an emergency shall constitute an affirmative defense to an action brought for the noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or relevant evidence that:
   a. An emergency occurred and the permittee can identify the cause of the emergency;

SECTION G - GENERAL PROVISIONS

b. The permitted facility was at the time being properly operated;
c. During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and
d. The permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division within ten (10) working days of the time when emission limitations were exceeded due to the emergency. The notice shall include a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
e. This requirement does not relieve the source from other local, state or federal notification requirements.

2. Emergency conditions listed in General Condition (f)1 above are in addition to any emergency or upset provision(s) contained in an applicable requirement. [401 KAR 52:020, Section 24(3)]

3. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof. [401 KAR 52:020, Section 24(2)]

(g) Risk Management Provisions

1. The permittee shall comply with all applicable requirements of 401 KAR Chapter 68, Chemical Accident Prevention, which incorporates by reference 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall comply with the Risk Management Program and submit a Risk Management Plan to:

RMP Reporting Center
P.O. Box 3346
Merrifield, VA, 22116-3346

2. If requested, submit additional relevant information to the division or the U.S. EPA.

(h) Ozone depleting substances

1. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
   a. Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
   b. Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
   c. Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
   d. Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40

SECTION G - GENERAL PROVISIONS

CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.166

e. Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.

f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.

2. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.